DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I. SATURDAY, JANUARY 6, 1849. NO. 2.

S. W. COLE, EDITOR. QUINCY HALL, BOSTON. J. NOURSE, PROPRIETOR.

RECEPTION OF THE NEW ENGLAND FARMER.

WE have the satisfaction of finding that the New England Farmer is meeting with a most cordial reception. Our numerous friends whom we see, and many others at a distance, from whom we have the pleasure of hearing, express their hearty approval of the work in its form, matter, and neatness of execution, and we are obliged to many, not only for their kind wishes and patronage, but for their liberal aid in its circulation.

We copy the following remarks from the president of the Essex Agricultural Society, particularly for the valuable hints they contain in regard to communications, though thus far our correspondents have been brief. As to the small size of our page, the deficiency is made up by the greater number.

To the Editor and Publisher of the New England Farmer.

GENTLEMEN: I am happy in the receipt of a paper under this name. The well-earned reputation of a paper so ably conducted as was your predecessor under the same name, by Fessenden and others, cannot fail to be a favorable introduction. The form you have chosen is much better calculated to give it permanency than a larger page, and makes it more easily read. If it is objected that it will not contain so much matter as the other forms, let those who offer such objections, take care to divest their communications of all superfluous words, and you will have no difficulty in finding space for them. It has become too common among writers on agricultural subjects, to forward to the press their productions as soon as they are *threshed*, before they are *winnowed*. With my best wishes for the success of your enterprise,

I am, very respectfully, your obedient servant,

J. W. PROCTOR.

DANVERS, *Dec.* 14, 1848.

PRUNING GRAPE-VINES.

The best time for pruning grape-vines is late in autumn, after the fall of the leaf. If neglected then, the sooner it is done the better; for if done late in winter, or in spring before the leaves put out, the vines are liable to bleed. Sometimes, when they are pruned early in winter, and there is steady cold weather till spring, so that the ends of the vines do not become dry, they will bleed as warm weather comes on in spring, the same as vines cut at that season.

If vines are rather tender, — as is the case with the best kinds cultivated in New England, — it is best to prune partially in fall, leaving twice as much new wood as is needed, and finish the operation in spring, when the leaves have started, as then the life of the vine may be seen, and the vines will not bleed after the plant is in foliage.

CARE OF CATTLE.

Cattle should be kept warm and comfortable in winter, else far more food will be necessary; and then they will be less profitable, than when kept in a comfortable condition. The whole barn should be made tight and warm, and there should be no partition between the cattle and the large, open space called the barn floor; or there should be no obstruction directly before the heads of the cattle, whether standing or lying, that they may breathe the pure air. Rails, or bars, in front, will be sufficient.

Many of the best managers of stock have barns so warm that water will not freeze in them in the coldest weather. The open space in front of the cattle gives a good chance for pure air. In warm, dull weather, in winter, it is necessary to open doors, at some distance from the animals, that a draft of air may pass through the barn floor, yet not blow directly on the cattle.

If a cattle house be made close, with a partition in front, the steam and gases arising from the manure, and the breath of the animals, will produce foul air, and create disorders.

MAPLE SUGAR. — A good man will make six or seven hundred pounds in three weeks. The man that took the premium at Auburn in 1846, kept all vessels clean. He run the hot sugar into conical vessels, having a half inch hole, plugged at bottom, until the sugar was thoroughly hard; then put three layers of woollen cloth on top, and poured on a pint of water every morning for three weeks in succession. The water looked like brown molasses, and the sugar, when done, like loaf sugar.

SCIENCE IN AGRICULTURE.

The various sciences that aid agriculture are comparatively new, and their application to this department of industry is still more recent; yet they have already thrown much light on various subjects, and have clearly explained what before seemed as mysteries, enabling the farmer to act understandingly, by using the proper means to accomplish desirable purposes. The following articles illustrate our proposition: —

Bone Disorder in Cows. — Some years ago, in the great dairy district of Cheshire, England, the cows failed from a waste, or falling in of the bones; and able chemists were called on to explain the cause. On analysis, they found that milk contained a quantity of phosphate of lime, or bone earth, and that the same substance formed a large portion of the material of bones. They also discovered that old lands became exhausted of phosphate of lime, and that common stable manures did not sufficiently supply the deficiency. A cow, fed on an acre of land, for seventy-five years, would carry off, in her milk, one ton of phosphate of lime.

As this material became exhausted, the land produced plants that contained but a small portion only; and that being appropriated mostly to the production of milk, the animal had not a supply to repair the natural waste of her bones; hence she failed, having what is now called the *bone disorder*. As a remedy, bone meal and dissolved bones were given; and as a preventive, bone manure was applied to the land, and then it produced plants for fodder that abounded in phosphate of lime. With a renovation of the land, the disease disappeared.

Many farmers have seen their milch cows attempting to eat bones, without being aware of the cause; and since this subject has been better understood, bone meal is kept at agricultural stores, as a medicine for cows that feed on old lands and become afflicted with the bone disorder.

The English have become well skilled in this subject, and they import a vast amount of bones from the continent of Europe, even from the battle-grounds; and they also import largely from this country, and from those very cities around which the lands are old, and becoming barren for want of the very material for manure which is exported to foreign lands; and only a few years since, some of the produce of this manure was imported into this country, to supply a lack occasioned for want of intelligence and energy in agricultural pursuits. But we are now learning on this, as well as other subjects, and improvements follow. When proper machinery is in operation for grinding bones, or the process of decomposition by acids and alkalies, this valuable manure will be used exclusively to enrich our own lands, and aid in filling our own granaries, and keeping our animals in healthy condition without resort to medicines.

The following analyses show that bones are composed largely of the phosphate of lime, and that the same ingredient is a component part of milk, and though but small, daily, it amounts to a large quantity in the course of a year, as twenty gallons of milk contain an ounce of phosphate of lime.

Composition of Bones.

Organic animal matter, (gelatine,)	33¼
Phosphate of lime,	55¼
Phosphate of magnesia,	3
Carbonate of lime,	3¾
Soda and common salt,	3½
Chloride of calcium,	1
	100

Some analyses show thirty-eight parts of phosphate of lime, and ten parts of carbonate of lime, in bones.

Composition of Milk.

Water,	873
Butter,	30
Caseine,	48.20
Milk sugar,	43.90
Phosphate of lime,	2.31
" magnesia,	.42
" iron,	.07
Chloride of potassium,	1.44
" sodium,	.24
Soda in combination with caseine,	.42
	1000

Analysis of Indian Corn. — Dr. Playfair has recently analyzed specimens of corn of American growth, and finds its composition as follows: —

In 100 parts —	
Protein, (nutritive matter,)	7
Fatty matter,	5
Starch,	76
Water,	12
	100

One pound of Indian meal will absorb five pints of water, in making it into mush or pudding, and when sufficiently boiled, the mush will weigh four and a half pounds.

It will be seen from this analysis, that corn contains less protein, or nutritive matter, than wheat, oats, or barley, but more than either rice or potatoes. It contains, in fact, three and a half times the quantity of nutritive matter that is found in potatoes, and a very much larger quantity of starch, and less water. It also possesses more fatty matter than any of those, which is an important consideration, where the mere fattening of animals is the object. It will be thus found, as an article of diet, both for man and beast, superior to potatoes, and rice, but inferior to wheat, oats, and barley. — *London Gard. Chronicle.*

SECURITY OF CELLARS.

This subject is often neglected. By saving a few dollars of labor, sometimes only a few dimes, hundreds of dollars are lost by the freezing of roots, fruit, &c. A few mild winters lull people into negligence; then comes a real freezer, and Jack Frost walks into the cellar, and takes possession of every tender article. In the spring, after a very cold winter, we often hear of farmers losing two or three, and some five or six hundred, bushels of potatoes. Sometimes the loss would far more than pay for making a frost-tight cellar, that would last for ages. The only safe way is to prepare for the worst, so as to defy the greatest degree of cold that is wont to occur.

"BLACK HAWK."

For the New England Farmer.

S. W. Cole. Sir: The cut above was designed to show the figure of the stallion and trotting horse, "*Black Hawk*," which was sired by the old "Sherman Morgan" horse; and has stood for the improvement of stock at Bridport, Vermont, for the last four years. He is owned by N. H. Hill, Esq., of Boston, Mass., who purchased him of Benjamin Thurston, Esq., of Lowell, Mass. While in Mr. Thurston's possession, Black Hawk frequently appeared at the Cambridge Trotting Course, and won several purses, varying from two hundred to one thousand dollars.

Last year, at the New York State Show and Fair, held at Saratoga Springs, he trotted against "Morse's Gray," one mile and repeat, and won with ease, without any training. The first heat he performed in two minutes fifty-two seconds, the second in two minutes forty-three seconds. He has trotted a mile in less time, but was never used expressly for the turf. He has trotted ten miles at two heats, in thirty-two minutes and thirty seconds.

Three seasons ago, his services for the improvement of stock amounted to eighteen hundred dollars, at ten dollars for each foal. This season they have amounted to over two thousand dollars.

Black Hawk is of a jet black color; fifteen hands high; thirteen years old; perfectly sound; and weighs 1024 pounds; is celebrated for symmetry, action, docility, endurance, loftiness in carriage, great speed, and for the improvement of stock. His colts show evident signs of the "Morgan" blood, attaining good size — stand low for their weight — have great action and spirit — are very playful and mild, with heavy, waving manes and tails, and they sell at remunerating prices. A three year old stallion, which he sired, was sold last month for eleven hundred and twenty-five dollars.

Black Hawk has a wide, clean, sinewy leg; short from the knee to the pastern; short back; deep in the brisket; eyes bright, lively, and prominent; open under the jaws; a lean head, face a little dishing; open nostrils, small, delicate muzzle; teeth and countenance savage; action high, proud, and graceful, moving boldly in harness; combining, in every respect, strength and beauty, and evincing courage and power from the hind fetlock to the tip of the ear.

The Morgan horses are so well known in Boston and vicinity, that they need no praise or description. They are acknowledged to be the perfect "Yankee harness horse."

Very respectfully yours,
SOLOMON W. JEWETT

Weybridge, Vt., *Nov.* 22, 1848.

To the Editor of the New England Farmer.

FOREST TREES.

Sir: I am frequently inquired of as to the best method of getting forest trees from England, and it has occurred to me, that it may advance the cause of forest culture to show how this can be done with economy and certainty. Both Hovey & Co. and the Winships will import trees, in large or small quantities, to order; probably most of our nursery men are in the habit of doing so; for which you pay them a reasonable commission. Another mode is, to order them directly for yourself. This you can do, remitting a sight bill for such an amount as you may wish to invest in trees to some established nurseryman, and you are very certain of having an order, so accompanied, attended to promptly and honestly. By knowing about the price of the trees in England,

you can calculate very nearly how many of each kind of tree a certain sum will produce, I herewith send a list of prices for *transplanted* forest trees of the kinds most usually wanted. Seedling trees are about half price, perhaps less.

English Ash, 1½ to 2 feet high,	per 1000,	$3 00
" " 3 feet	" "	4 00
" " 4 "	" "	5 00
Mountain Ash, for each grade, $1 per 1000 higher.		
Beech, 2 to 2½ feet,	per 1000,	$4 00
" 2½ to 3 "	" "	5 00
Birch, 1½ to 2 "	" "	3 00
Scotch Fir, 1 year transplanted,	" "	1 50
" " 2 " "	" "	2 50
Norway Spruce, 9 to 12 inches,	" "	3 25
" " 12 to 15 "	" "	5 00
" " 15 to 18 "	" "	6 25
Larch, 1 yr. transplanted, 15 in.	" "	1 50
" 1 " " 15 to 18 in.	"	2 25
" 2 " " 2 feet	" "	3 25
English Oaks, 1½ to 2 feet	" "	5 00
" " 2 to 2½ "	" "	6 25
" " 2½ to 3 "	" "	7 50
Turkey Oaks, one dollar higher than the above.		
Austrian Pine, a valuable shady tree, one year transplanted, per 1000, ...		6 50
Sycamore, 2½ to 3 feet, ...		3 50

I have selected from a long price-current the kind of trees most usually wanted, all of which thrive well in New England. They are the wholesale prices taken by the hundred or thousand from the nursery of William Skirving, of Liverpool, from whom I import all my trees. I have merely changed the currency from sterling to American. Now, we will suppose, that a person in the country who has no foreign correspondent, wishes to plant a piece of ground with larches, oaks, or other trees; he knows about the number he will require; he has then only to make out the list, compute the cost, purchase of Harnden & Co., or some other respectable exchange dealer, a bill of exchange for the amount, enclose it with the order to William Skirving, of Liverpool, and he will ship them on board of some vessel bound to Boston at a proper season and in a proper manner, advising him of the same by steamer. I mention Mr. Skirving, because he is the only one whose name I now recollect, and because, from my dealings with him, I know that the utmost reliance can be placed upon him. It is an advantage, also, to have the nursery near the place of shipment, as there is less liability to accident and delay. In making up an order, a few dollars had better be added for expenses of shipment, in which case there will be nothing to pay on arrival but the freight. R. S. F.

December 20, 1848.

Editorial Remarks.

The above communication contains highly valuable information to those who would import forest trees, and are unacquainted with foreign nursery men. Mr. Skirving sustains a good reputation, and we take the liberty to say that the above initials indicate the name of Richard S. Fay, Esq., of Lynn, who has shown his deep interest in the cultivation of forest trees by liberal offers to the Essex Agricultural Society for the encouragement of this important department of agriculture. His donations for ten years, provided there are ten competitors for the premiums, will amount to the very liberal sum of *one thousand dollars*. A vast amount of good will result from this offer, as it will give an impetus to the business, not only in that county, but throughout the barren wastes of New England, from the favorable examples, and the information generally diffused.

In the first settlement of this country, there was no cautionary voice of,

"Axeman, spare that tree,"

but the blows were dealt thick and fast, at random or with injudicious design; and the consequence is, naked hills, bleak and barren plains, and a scarcity of fuel and timber. But with intelligence and energy in the renovation of forests, the short space of only ten or twelve years, will present a fair promise for the future, and the waste places will be adorned with living monuments to the memory of those who encourage their production.

For the New England Farmer.

CULTIVATION OF FRUIT.

Mr. Editor: Every man owning a lot, however small, should embrace the earliest opportunity to plant apples, pears, plums, cherries, grapes, &c., carefully selected for their rich qualities and productiveness. They are sources of pleasure and profit too; they are healthful necessaries of life, and they are luxuries within the reach of all. Who does not admire that beautiful figurative expression of "sitting under our own vine and fig-tree"? Who does not feel grateful to his Creator, for the blessings of life, as he walks out at morning, noon, or eve, with his better half, and their loving prattlers, to view the blooming trees, planted by his own hand, inhaling the rich fragrance of their flowers or fruit? A happy home with these attractions will rarely be abandoned for the foul haunts of the drunkard, gambler, or libertine.

It is no less a matter of surprise than regret, that comforts so necessary and easily attained, should be so long deferred by many, and never sought by others. A row of fruit trees around a garden is in good taste, and produces much fruit, is little or no encumbrance to the lot, and the only means of obtaining a product from the rich soil beneath your wall. The young farmer should never wait to clear all obstructions to the plough, and make his soil rich by tilling before he can set an apple, cherry, or plum tree. Injudicious tilling will spoil an orchard. My neighbor has ruined a once thrifty orchard, by cropping it with *wheat*. The soil is yet rich, but his trees are in the yellow leaf at *midsummer*, do not bear, and, in fine, are dying. A part of the same orchard that was fenced into the highway, has had no manuring, cropping, or care, and that part is vigorous and bearing.

Fine trees are reared on granite soils, too rock-bound ever to be tilled. Horned cattle should never be allowed in a young orchard. Hogs, and even sheep, will soften the turf, and facilitate the growth of trees, if not allowed to rub against them. To prevent this, set firmly in the ground three substantial stakes, of durable wood; to these firmly nail your boards, and form a substantial triangular fence around each tree, from one to two feet from its trunk.

The best method of manuring, where land is not tilled, and no animals admitted, is to cart, once in three years, flags, rushes, leaves, rotten wood, or any worthless trash, to kill the grass sod, and retain the moisture. Spread it from four to eight feet from the the tree, according to size. When you have located permanent walls and division fences, plant a row by each. It is the best location for a rapid growth, an ornament to your farm, and sufficient orchard without encumbering tillage. If their first fruits prove crabbed and worthless, graft with such as you know

to be good bearers and valuable fruit, never cutting your limbs too near the trunk to make your top too thick and wounds too large.

JESSE SMART.

TROY, ME., *Dec.* 1848.

EDITORIAL REMARKS.

We have numerous instances of grain crops being very injurious to orchards. Root crops may be cultivated to advantage among trees; these keep the ground light and mellow, and lead to deep and thorough tillage. The ripened grain doubtless exhausts the soil of some ingredients that are essential to the trees or fruit.

For the New England Farmer.

POTATO DISEASE.

MR. EDITOR: There is no topic, moral, religious, or *political*, that has been so thoroughly discussed, without arriving at any satisfactory result, as the potato disease. For years our agricultural journals have teemed with *discoveries* of *cause* and *cure*, and all the remedies, like those of the patent nostrums of the day. "*Strike at the root of the disease,— Remove all impure humors and restore health.*"

And yet a strict adherence to the rules laid down, (and which it is said were a sovereign remedy the last season,) are a *total failure this.* — The "rot" continues. One writer avers it is atmospherical influence, caused by the extreme dry and warm weather. The next season is the reverse — extremely wet and cold: a new discovery is made, that it is occasioned "by the extraordinary humidity, combined with a peculiar state of the atmosphere." Some theorists attribute the disease to flies, or other insects. Others aver that the real cause of the evil is "a fungus or mushroom of extreme tenuity that breeds *amazingly* and reproduces itself by thousands." Some have found a remedy in planting unripe tubers, or in renewing from the seed; others, in the use of plaster, salt, lime, and ashes, have *saved* or *destroyed* their crops. Mowing the tops when in blossom has stayed the *destroyer*, at the *expense* of the *crops*. But these visionary theories are exploded. Each succeeding year finds us as much in the dark as ever. In 1847, the early-planted and harvested potatoes escaped the rot; the long reds and late potatoes were nearly a total loss. In 1848, the case is reversed: the earliest planted and earliest harvested are the most affected, whilst the long reds and other late varieties have universally escaped — showing conclusively, that no general rule can be safely adopted in the cultivation of potatoes, to avoid the rot.

All this strengthens our belief in the position we adopted some two years ago — that the cause and grand panacea had not and *never would be discovered.* It is as inexplicable as the cause and spread of the Asiatic cholera, and must ever be equally problematical; yet we think the disease is on the decline, and will in a few years cease to exist. Under these impressions, our advice for the future is, plant just as many potatoes as you would if the disease had never appeared, manure them in the same manner, cultivate them in the same way, entirely regardless of the delusive speculative theories of the thousand and one writers who have discovered so many *sovereign remedies*, which are just about as valuable as a last year's almanac. C.

PEMBROKE, *Dec.* 1848.

EDITORIAL REMARKS.

Our correspondent is perfectly correct as to his general views and conclusions about the cause of, and remedy for, the potato rot; yet, notwithstanding all have failed to show the true cause, and assign a sovereign remedy, much light has been thrown on the subject, which greatly aids the cultivator. Many causes assigned are predisposing causes, and some remedies recommended are partial remedies or preventives.

Wet lands and unfermented animal manures are predisposing causes that may be avoided, and this is the case with other conditions or circumstances that have an unfavorable influence. Salt, plaster, lime, charcoal powder, and other specifics that have been recommended as remedies, though not sovereign, often serve a valuable purpose as partial preventives.

Although early planting is not a sure guard against the rot, yet it is measurably so, as in numerous experiments, and on an average of years, early planted potatoes, or those that are early by nature, are less affected than late planted, or late varieties.

Early digging will not always save potatoes from this malady; yet it often lessens its effects, particularly when we have warm, heavy rains in the fall.

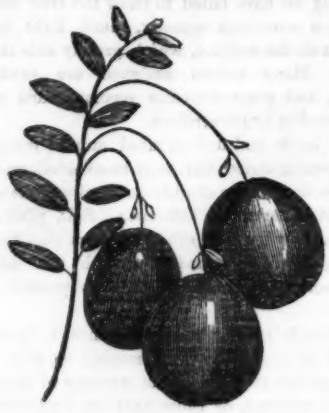
A few months ago, we stated that the best and cheapest remedy (partial remedy, it should be called) was the cultivation of hardy kinds, that were not liable, or not very liable, to rot; for every cultivator is aware that there is a great difference in different varieties. When we dug fifty kinds in September, that were planted for experiments, which was rather early, before many rotted, one kind, the Stockbridge, a new variety, very large and beautiful, had rotted more than all the other kinds.

PRESERVING SWEET POTATOES.

We copy from the Southern Cultivator an article on this subject, and though the mode of preservation may be good in a mild climate, a log cabin would not be sufficient protection in a cold region; yet the method of preventing decay may be good in all climates, and when further protection is necessary against the cold, it may be effected by covering with hay or litter.

Last year I used a log cabin, unchinked, with dirt floor, to save my sweet potatoes and plants. There was a good lock on the door, and I lost none either by rot or *appropriation.* Having gathered a large quantity of pine straw and leaves from the forest, I spread it down about six inches thick on the floor, and then spread down potatoes a foot or more deep, over this another layer of straw, and so on alternately, until the potatoes were all housed. They kept perfectly sound, and better than any I have ever put up. The lock secured them from thieves. If S. will try this plan, I think he will succeed. I believe that they cannot be kept in a cellar. I have tried it, and failed; also tried double log cabin with interfilling of sand, and failed. It was too close; they must have air, be kept dry and *dark;* the pine straw absorbs any extra moisture in the heap.

BONES. — That world-renowned chemist, Liebig, says that a single pound of bone dust contains as much phosphoric acid as one hundred pounds of wheat. From this we can easily perceive that there are bones wasted on every farm in this state sufficient to manure the entire wheat crop. This, to many, will doubtless appear strange, but is nevertheless true.



THE CRANBERRY.

Much has been written on the cultivation of the cranberry on high land, but in most cases we have had reports from partial trials. Some person sets vines with a shovel-full of peat taken up with the vine, and this may support it the first season; but a few years' experience is necessary to show the effect of hard winters and dry summers.

One cultivator took a premium for raising four hundred bushels of cranberries on an acre of high land. A gentleman informed us last summer that he had been to his place, and searched in vain for high land cranberries. A few years since, something was published of extensive and thorough experiments on the cultivation of the cranberry, in a certain location, and occasionally we heard something more on the subject.

Last fall, the season for the crop, we examined the result of these experiments, and though there was not a single berry to mark the site, or show the object of expenditure, there were monuments of great labor and expense.

We name these discouragements, as the public have been deceived on this subject, and it yet remains to be proved, by fair experiments, whether the cranberry will endure our cold and changeable winters, and hot, dry summers, on dry land, or common tillage, with common cultivation.

We have seen very fine cranberries, of spontaneous growth, on extremely dry, hard, poor, porous soil, where weeds could obtain but a stinted growth. This leads us to suppose that they would do well in the more advantageous situation, apparently, of good, mellow land, in good condition.

We planted vines, from high and low land, last spring, on common tillage, and gave common culture. All that we report is, that they lived, grew but little, and bore only a few berries. The following communication is one of the most sensible that we have ever seen on this subject. With it we received a box of cranberries, remarkably fresh, rich, and spirited, and yet very tender; being finer than those picked in the fall, either at that period or the present. Time and the weather have finely ripened and mellowed them, without any loss of good qualities.

For the New England Farmer.

Cultivation of the Cranberry in Gardens.

Mr. Editor: It is probably not generally known, that the cranberry can be successfully cultivated, like the strawberry, in our gardens; yet such is the fact. It is necessary, however, to prepare a bed of common garden soil, not absolutely dry, in which a portion of sand and peat has been well incorporated. This preparation of soil we deem important in the cultivation of the cranberry. Possessing, as it does, a delicate, fibrous, or hairy root, it requires a sandy peat, in which to thrive. In the selection of plants for the purpose of cultivation, we prefer those growing in low grounds, near the upland, in preference to those found in wet, mossy meadows. We think the autumn a favorable season for transplanting the cranberry, as they can the more readily be taken from low, wet lands. In removing the plants, it is best to take up a sod of earth with them, carefully picking out the grass. These may be set in the bed, in rows twelve or eighteen inches apart, and if the ground is mulched with litter between the plants, it will serve to keep it moist, and prevent the growth of weeds. This will be no longer necessary when the vines extend and cover the ground with a thick mat of verdure; they are then less affected with the drought, and the weeds disappear.

It may be necessary to water the bed, in very dry weather, and keep it clear from weeds and grass, at all times. The plants of the cranberry need protection in winter. This, you will recollect, it always receives in its wild state in the meadows, by the overflowing of them by water. My plants are protected by covering them with the boughs of some evergreen tree. I prefer, for this purpose, the prostrate branches of the juniper, or, as it is sometimes improperly called, ground hemlock. This effectually protects the roots of the plants from the effects of the frost, likewise its evergreen leaves, and its fruit.

We have been in the habit of leaving a considerable portion of the fruit of the cranberry on the vines during the winter. We find it keeps well, and can be taken fresh from the vines, when wanted. The cranberries I send you were taken from my bed yesterday, and you will perceive a plumpness and freshness not to be found in those dried in garrets, or drowned in water, in cellars. Those persons, who have had much experience in the cultivation of native plants, found growing in swampy or very wet land, will have noticed that some of them will bear a removal, and more readily accommodate themselves to a comparatively dry soil, than others. And I am inclined to think the cranberry is disposed, when removed to our gardens, and a suitable reception is prepared for it, to accommodate itself to its new location. But in order to completely naturalize it, and render it at home, we should produce plants from seeds taken from specimens under cultivation. I can see no obstacle in the way of complete success, in the cultivation of the cranberry, provided the same care and skill is bestowed upon it, that is rendered to other fruit.

SAMUEL P. FOWLER.

Danvers, New Mills, *Dec.* 12, 1848.

For the New England Farmer.

CULTIVATION OF RYE.

Mr. Cole: It has been a matter of surprise, that so little attention has been given, by our farmers, to the raising of this grain. When it is considered, that a fair crop can be grown on land of ordinary quality, and that the crop can be raised and gathered with less labor than most other grains, no good reason can be given why the farmer should not raise enough for his own consumption.

During the past season, there were raised on the town farm, in Danvers, *fifty-five bushels* of rye, on one and a quarter acres; or at the rate of forty-four bushels to the acre. This is the best crop of the kind that has come under our observation. For the instruction of those who may wish to repeat the experiment, I will state the prominent facts relating to the culture.

The land is a gravelly loam, soil rather light and shallow. In 1845, the entire field yielded less than one ton of hay. In 1846, it was planted with corn, and yielded about fifty bushels to the acre. A full shovel-full of manure from the hog-yard — made from meadow-mud and slaughter-house offal, by the operations of a large number of swine — was placed in each hill. In 1847, about five cords of like manure was spread upon the land; and the same was planted with potatoes, and the crop was large and of good quality. They were dug about the 20th of September, when the land was ploughed with four oxen, and about one and three quarters bushels of rye was sown and harrowed in. It came up well, and grew in the most flourishing manner through the season; averaging from five to six feet in height. It was harvested about the middle of July, in bright and good condition.

The distinguishing characteristics of this cultivation were *deep ploughing* and *full manuring*. At each of the ploughings of the land, for three years past, a strong team was used, and the furrows run from eight to ten inches in depth. In this way a substratum was formed for the growth and support of the grain, that saved it entirely from injury by drought — the land being rather dry. The same farmer has succeeded for several years in obtaining very good crops of rye; and we think his success is owing more to his deep ploughing, than any other cause. In fact he has created a soil of ten or twelve inches in depth, where there were not before more than five or six. I offer these facts for your use, if you think them worthy a place in the New England Farmer.

Very respectfully,

J. W. PROCTOR.

Danvers, *Dec.* 1848.

For the New England Farmer.

GENERAL IMPROVEMENT OF A FARM.

Mr. Editor: In my intercourse amongst farmers, I find a class of men, who, on conversing with them in regard to making betterments on their farms, will tell you, if they were able to improve their farms, as they ought to be, and make thorough work, they should like to do it; but they do not like to begin, because they have not time to finish to suit them. So their farms lie year after year, without any advancement, because, forsooth, they cannot do all at once.

Now, to such, and all, who are beginning with a view to the general improvement of their farms, I have a few suggestions to make. If a worn-out farm is to be reclaimed, it must be kept in mind, that it is to be done by a great number of small jobs, I may say almost without number, some of which may be accomplished, perhaps, in ten or fifteen minutes, with suitable tools, after being on the ground, and which, of themselves, are perfect, and tending to the general result. Others, perhaps, may take several days.

In one place, the cutting of a small ditch from the road-side, and directing the wash of the road upon grass, and in another, ploughing a single furrow from a piece of low land and taking off the surplus water, may add to the quantity and quality of the hay twenty times more than the expenses incurred. Again, the removal of rotten stumps and small surface stones, and in some cases old logs on the mowing lands, so as to admit of using the horse-rakes, thus saving time and increasing the amount of produce.

One improvement being made, will pay the expenses of another, and the increase will be accelerated, like the accelerated motion of a falling body; and almost before the improver is aware of it himself, he will find his farm assuming a healthy appearance, and the work, which at first seemed so difficult and hard to be accomplished, will become a pleasure.

The first thing necessary, in order to accomplish so desirable a result, is to examine the farm in all the different fields, noting the improvements which may be made, taking that class, which may be made with the least expense, first; have the improvements necessary to be made fixed in the mind, so that when there is a leisure from the common labors of the farm, such as planting, sowing, and harvesting, there may not be any time wasted in thinking what to go about, but select some one of the improvements, according to the time which can be spared, and go about it with earnestness, accomplish it, and the fruits shall be enjoyed. — "The wilderness and the solitary place shall be glad for them; and the desert shall rejoice, and blossom as the rose." Isaiah, 35.

Yours respectfully,

S. M. STANLEY.

West Attleborough, *Dec.* 22, 1848.

For the New England Farmer.

ASHES FOR POTATOES.

Mr. Editor: I offer you a few remarks on the potato. For five years I have been trying experiments on raising potatoes. This year I planted early in May, dug holes, and put in my potatoes, and then a shovel-full of coal ashes, some hard and some soft, with wood ashes, mixed with some horse manure on the top. The potatoes came up early, looked well, continued perfectly healthy, and ripened well. I dug them in September, and found them perfectly sound, not finding a decayed potato. They have continued sound, and there is no appearance of rot.

I planted some of the same kind of seed, on the same kind of ground, (except mud had been spread on the furrow,) with good manure, and at the same time; and when I gathered them, they were sound, but soon began to decay. Probably I shall lose one quarter of them, and the rest are rather soggy, while the others are mealy and good. Now, it appears to me the difference is owing to the kind of manure, and the preserving quality of the ashes. I hope others will try the experiment. I have no doubt of the good effects of ashes, as others in the vicinity lost more or less of their potato crop.

Yours truly,

S. A. SHURTLEFF.

Brookline, *Dec.* 1848.

Editorial Remarks.

Some years before the potato rot prevailed, a very skilful cultivator showed us his mode of raising smooth potatoes in an old garden. He put about a half pint or a pint of coal ashes in each hill, and his potatoes were remarkably smooth and excellent. Previous to his using ashes, his potatoes were much injured by worms.

He showed us a spot where he had thrown coal ashes to fill up a hollow, until they were too deep for roots of vegetables to penetrate below them. In these ashes, good potatoes and beans were growing, which showed clearly that the ashes contained food for plants.

LEGISLATIVE AID TO AGRICULTURE.

In the forthcoming Transactions of the Essex Agricultural Society, a few pages of which we have received by the politeness of the president, John W. Proctor, Esq., are valuable hints by this officer to the trustees, from which we copy his remarks, in relation to legislative bounty, with a view of bringing the subject early to the consideration of the legislature.

If there is one subject of more general interest to the community than another, that subject is agriculture, as it is at the foundation of all other pursuits. This state has been one of the first in the Union in the laudable object of encouraging agricultural improvement, by enabling societies to offer liberal premiums for superior productions, management, and inventions. And since the happy results of legislative bounties upon the prosperity of the state are well known to every member of the legislature, we trust that the present aid will not only be continued, but liberal additions will be made to the present donations, commensurate with the liberal policy of the state, and the favorable effects from her past munificence. We copy from the Transactions.

The continued liberality of the state, which has enabled the Society to offer our premiums annually, although to a limited extent, and the adoption of a system of economy that has kept its expenditures within the income, have had a tendency to prevent the enlisting of new members; especially while those who were not members were permitted to enjoy equal privileges, in competing for premiums, as those who were. If care had been taken to increase the funds by the addition of *seven hundred new members*, who have come upon the stage since our operations commenced, who would have been ready to join, if properly solicited to do so, this addition could have been advantageously appropriated, in the new modes of improvement, that would have been brought forward.

In fact, those who have directed the concerns of the society, have always felt themselves constrained, not by the want of objects of premium, but by the want of means to afford them, and by the desire to give permanency to the funds, that should enable the society to continue its operations, if, perchance, any thing should happen to discontinue the legislative bounty. But there is no reason to fear any such discontinuance. Whatever party may be in power will not presume any such thing. Among all the fanciful projects of economy that have been agitated, we have never heard an intimation of the expediency of withholding the bounty to agricultural societies. On the contrary, the appropriation has been very generally approved; and it remains with the farmers, themselves, to say, when, instead of *six hundred dollars* annually, there shall be given *one thousand dollars* annually, to each of the societies. Is this a visionary project? Could it not be done by a little exertion? Appoint your agents to solicit subscribers. Let a memorial be presented to the legislature, setting forth the benefits to accrue therefrom; let the other societies in the commonwealth be solicited to coöperate; and three chances out of four, another year would crown the enterprise with success. There is nothing like trying. Something has been done for agriculture, but not so much as its relative importance demands.

Fattening Animals. — A memoir was read to the Academy of Sciences, at Paris, by MM. Dumas, Boussingault, and Payan, "of researches on the fattening of animals, and on the formation of milk." These philosophers announce their belief that fatty matters are formed in plants alone; that they thence pass, ready formed, into the bodies of herbivori, entering the chyle duct by the lacteals, and so passing into the blood; that the first degree of oxydation forms stearine or oleic acid; a further degree produces the margaric acid, which characterizes fat; a still further degree, the volatile, fatty acids — in opposition to Liebig, who traces the origin of fat to the sugar or starch of the food. In confirmation of their views, they show that hay contains more per cent. of oleaginous matter than is produced in the butter from a cow fed on this hay; and that cows fed on potatoes, or other roots poor in fat, produce much less butter. They advance an influence, which bears much on rural economy, that a cow eliminates twice as much fat from a given quantity of food as does an ox; and hence the commerce of milk and butter deserves a high degree of attention. Some relative experiments on fattening pigs bear out the same general principles. — *Pol. Review.*

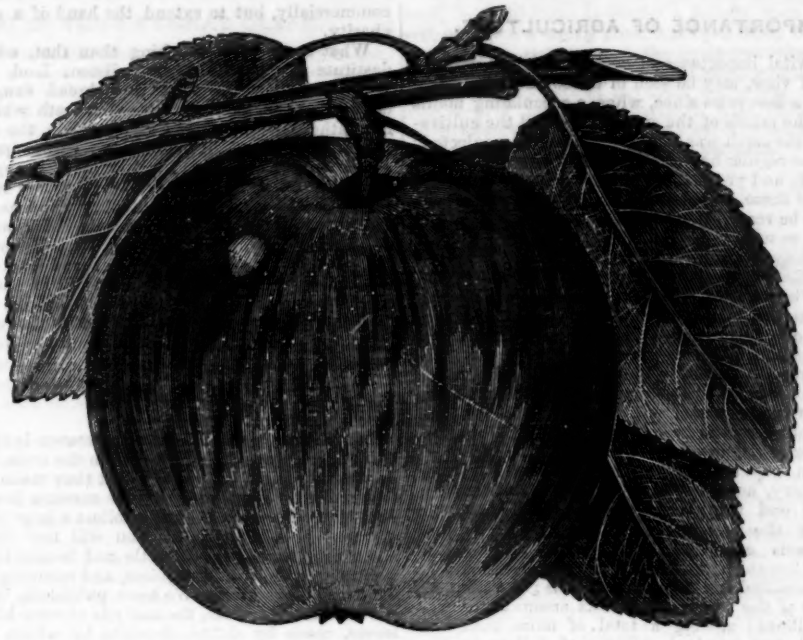
MANAGEMENT OF HORSES.

We have no domestic animal among us, that costs us so much that will do a greater variety of work, or that is so much, abused, as the horse. Like his master, the horse is complicated in his structure, and liable to a great many diseases; and as he is capable of being made to exert all his powers of body in the efforts of speed or severe labor, nine tenths of them are cut off in the prime of life. And yet by care and attention, by kind and humane treatment in working and feeding, he can be made to endure a great many years, active and strong. Mr. Pell, of New York, has given some excellent rules for the management of horses, which were published in the Transactions of the New York Agricultural Society. Among the good ideas which he there advanced, he observes, "Feed them in winter on a variety of food, such as oats, ground and whole, bran, strip stuff, beans, peas, turnips, carrots, potatoes, and parsnips, occasionally steamed separately and together. In summer, keep them always confined in airy stables, and feed them on clover, bruised grains, green cornstalks, cider pomace, oil cake, hay, &c. Be particular to give them three fourths of a pound of salt per week; occasionally two ounces of sulphur, and frequently two ounces of wood ashes.

"By good keep and judicious management, a pair of horses, perfectly sound when young, will last, and labor constantly, twenty-five years, and to the end will retain their spirits. I have a pair of bay horses," he observes, "on my farm that are now twenty years old, during which time they have never been at pasture, and have worked daily; they have never been incapacitated for work by lameness, or disease of any kind, and have always been perfectly healthy." He also adds that he has "another pair of sorrels that are eighteen years old, which labor daily, and will do as much work as any pair of six years old."

The above statements of Mr. Pell are worth listening to, and his advice should be followed. Much loss would be prevented, and much suffering to a faithful and useful animal be warded off, while the long-continued powers for labor would amply reward the extra care and kindness thus bestowed, even if the virtue of mercy to those brutes intrusted to our protection were not taken into account. — *Maine Farmer.*

Bird-lime is prepared from the berries of the mistletoe and the middle bark of the holly; it is boiled till it becomes soft.



HUBBARDSTON NONSUCH APPLE.

Fruit, from large to very large; roundish, tapering moderately and roundly to the top; skin, smooth, fair, rich, yellow ground, mostly covered with bright red, dark and unbroken in the sun, striped in the shade, generally russet around the stem, and sometimes a very few large prominent russet specks on other parts; stem, medial length, rather slender, in a rather broad, deep, regular cavity; eye, large, open, in a shallow basin; flesh, yellowish-white, tolerably fine, crisp, juicy, of a mild, pleasant, aromatic flavor, inclining to saccharine. In use from the latter part of October into December. It should be used as soon as it is in its prime, as it grows dry and spiritless very soon. It is hardy: we have had it growing several years in Maine, without injury in the winters. The growth is good, but not great, about the same as that of the Porter or Jewett's Red. The new wood is long and slim, and covered with a whitish, woolly or furzy substance, which distinguishes it from a spurious and worthless kind, that has a stout, naked scion, resembling that of the Baldwin. It is a good bearer, and bears about two thirds of its produce in alternate years, and generally in even years, as, '46, '48, &c.

The Hubbardston Nonsuch is one of our best late fall apples, particularly for the market, where it is very popular, bringing the highest price. Some say that this fruit has been overrated, but those who give it good culture, get large, fair crops, and sell the fruit from three to four dollars a barrel, make no such complaint. Yet as the fruit is rather transient, it is not adapted to extensive culture. Origin, Hubbardston, Mass.

PIPES FOR UNDERDRAINING.

SALT MUCK.

In your last number, you invite communications in a plain way, from plain men, and I avail myself of the invitation, coming as I do under this denomination of persons.

You have an article — "Pipes for Underdraining," — by which I learn of the intended importation of a machine from England, for making drain pipes. I desire to say to you, that this summer, I drained 1864 feet, and procured the pipes and flats made by Mr. A. Price, of Middletown Point, Monmouth county, New Jersey, at $16 per 1000 feet, at his works. They are the half pipe, such as you see represented in Stephens's Book of the Farm, each pipe about one foot long, and three inches in diameter, inside, of burnt clay. If any of your friends should not be disposed to wait for the machine, this may be to them acceptable intelligence.

I have used a great deal of salt muck to good advantage. I hope to haul up 1000 loads, this winter, into my barnyard. My first experiment was with a Siberian crab-apple tree, which I transplanted from a place where it did not appear to thrive. The salt muck had laid over one winter, mixed in alternate layers with lime. A hole, about three feet by four, and two spades deep, was dug, and filled with this mixture, and the tree planted in the centre It grew very luxuriantly, full two feet for one, compared with another apple-tree, (a russet,) within the distance of thirty feet, and I have ever since been an advocate for salt muck. T. J.

October 10, 1848. — *Selected.*

Human Knowledge is a proud pillar, but it is built in the midst of a desert of ignorance, and those who have ascended the highest have gained the most extended view of the waste.

IMPORTANCE OF AGRICULTURE.

The vital importance of agriculture, in a national point of view, may be seen in the consequence of its neglect a few years since, when a speculating mania seized the minds of the community, and the cultivation of the earth was in a great measure neglected; when the regular harvests of the field were of too slow a growth, and yielded too small a profit to satisfy the minds of those, who, blinded by visions of golden harvests to be reaped in a single day, looked upon agriculture as unworthy of a moment's regard; and the melancholy spectacle presented itself of this immense and fertile country being under the necessity of importing bread from Europe! Had this mad career been persisted in, it is obvious that we must, as a people, have rapidly descended the path of national ruin. But these schemes have passed away "like the baseless fabric of a dream." More just and sober views have succeeded, and this great pursuit of the nation has been prosperous.

According to the report of Mr. Burke, the Commissioner of Patents, for the last year, the value of the grain crops and the great agricultural staples of the country, amounts, in round numbers, to eight hundred and thirty-eight millions of dollars; the value of the products of orchards, gardens, and nurseries is estimated at fifty-four millions; the value of live stock, wool and dairy products amounts to two hundred and fifty-two millions; the value of products of the woods and forests amounts to fifty-nine millions; making a total of more than one thousand two hundred millions of dollars for the products of the soil for a single year. From the same source I give an estimate of the income of the other industrial classes. The income of all the manufactures in the Union for the same year, is estimated at five hundred millions of dollars; the profits of the fisheries, seventeen millions; the profits of trade and commerce, at twenty-three millions; and of professions, rents, banks and money institutions, one hundred and forty-five millions; making a total of seven hundred and eighty-five millions of dollars. By these estimates the amount of the industry of the country for a single year is one thousand nine hundred and eighty-nine millions of dollars. Of this immense sum nearly two thirds is the produce of agriculture.

Here is a lesson for those who have regarded agriculture as of minor importance, and considered other pursuits of more consequence; and also to residents of our great commercial cities, who, being accustomed to the noise and activity of those crowded marts, have looked upon commerce as the great leading interest of the Union. These estimates will correct such views, and show that, although the interest in commerce is great, yet, contrasted with that of agriculture, it is comparatively insignificant. The same amount of income from trade and commerce as that of 1847, would not in fifty years equal the estimates of the income of agriculture for that year.

These extracts and comparisons are not made for the purpose of undervaluing any of the great industrial pursuits of the country; far otherwise; — for all the different professions are reciprocally beneficial, and go to swell the aggregate of national prosperity; — but for the purpose of rescuing the profession of agriculture from the unjust estimate it has held in the minds of some, and of presenting the subject in its true light.

It is agriculture which enables us to receive and supply the wants of those thousands of oppressed and destitute immigrants who are annually seeking an asylum on our shores, from foreign oppression.

It was a successful agriculture which enabled us so recently to send relief to the famished inhabitants of a transatlantic region; not only to supply them commercially, but to extend the hand of a nation's charity.

What scene more touching than that, when the destitute inhabitants of that distant land, hourly sinking to the grave for lack of bread, saw in the distant horizon, through the mist of death which was fast gathering around their dying vision, the flag of the republic approaching, whose hostile appearance would now fill the greatest nation with apprehension, but on that occasion waving over a national ship, divested of the thunders of war, and hastening on the wings of the wind, deeply laden with the means of relief to suffering and dying humanity! Such a scene cannot be fully realized but by the rescued and grateful sufferers, and will forever stand a glorious memento of the gentle charities of the Christian life to destitute humanity, though the billows of a mighty ocean intervened! — *Newhall's Ad. before the Essex Ag. Society.*

Leaves for Manure. — As the season is at hand when the leaves will be falling from the trees, it may be well to remind our readers that they make excellent compost when added to the manure heap. A boy, with a horse and cart, can collect a large amount of them in a short time. You will find them to make excellent litter for cattle and horses in their stables; absorbing all the juices, and retaining them while used in spring. We have published, in some of our former numbers, the analysis of some kinds of leaves, made by skilful chemists, by which it has been ascertained that they possess the different kinds of ingredients essential to the growth of different plants, and especially of those kinds pertaining to the genus of trees from which they fall. — *Maine Farmer.*

The Ostrich, or Cochin-China Fowl. — This variety of fowl so far surpasses, both in size and power, all that we have ever yet seen in the shape of poultry, as to lead many, who have been permitted to inspect them, to refer them to the family of bustards. They are, however, genuine poultry. Their general color is a rich, brown, deep bay; on the breast is a marking of a blackish color, and of the shape of a horseshoe; the comb is of a medium size, serrated, but not deeply so, and the wattles are double. Besides their gigantic size, however, these fowls possess other distinctive characteristics, among which I may enumerate the following: The disposition of the feathers on the back of the cock's neck, is *reversed*, these being turned upwards; the wing is joined, so that the posterior half can, at pleasure, be doubled up, and brought forward between the anterior half of the body. — *Richardson on Dom. Fowls.*

A Scotchman who fattens 150 head of Galloway cattle, annually, finds it most economical to feed with bruised flaxseed, boiled with meal, barley, oats, or Indian corn, at the rate of one part flaxseed to three parts meal, by weight, — the cooked compound to be afterwards mixed with oat straw or hay. From four to twelve pounds of the compound are given to each beast per day. Would it not be well for some of our farmers, who stall-feed cattle, to try this or a similar mode? We are by no means certain that ordinary food would pay the expense of cooking; but flaxseed is known to be highly nutritious, and the cooking would not only facilitate its digestion, but it would serve, by mixing, to render the other food palatable, and by promoting the appetite nd health of the animal, would be likely to hasten its thrift. — *Albany Cultivator.*

KEEP YOUR STABLES CLEAN.

As our stock all stand on plank floors, early in the morning we first take up that part of the litter which is not much soiled, with a fork, and place it in the back part of the stalls, to dry during the day. We then clean out the manure, and put it on the dung heap. If litter be plenty, and it is an object to make as much manure as possible, then we should let all the litter go with the manure, and add plenty of fresh every night for the stock to lie on. And while on this subject, we wish to observe that if the litter be straw or coarse hay, it ought to pass through a straw-cutter before using it. This makes it much easier to fork the manure in the heap, as it is not then bound together with long straws. After removing the manure, we give the stables a slight sprinkling of plaster of Paris, or charcoal dust. Either of these substances absorbs all unpleasant effluvia, sweetens the atmosphere, and in the course of the season, adds considerably to the value of the manure heap.

Many farmers let their stock stand on the ground. If the soil be dry, there is no objection to this. If not cleaned out till spring, the manure should be spread evenly over the surface of the stable, every morning, a coating of plaster or charcoal dust then put upon it, and fresh litter added before night. Each animal will thus make a larger quantity of valuable manure during the season. One great advantage follows this system, and that is, the salts are not exposed to be washed out of the manure by rain, nor volatilized by the sun, as when exposed to the open air in the barnyard and other places. — *American Agriculturist.*

DRAINING OF MARSHES AND WET ARABLE LANDS.

By being drained, marshes which are now unsightly sources of disease, and as unproductive as unhealthy, may be converted into beautiful meadows, at once the fountains of wealth and the guaranties of health. All who have such lands upon their estates, should, at once, set about to transform them into arable soils. The improvement may cost time, labor, and money, but it will pay twenty per cent. upon the outlay in products, besides adding largely to the intrinsic value of such estates.

The facts here presented for consideration are worthy of mature reflection. Mr. F. Pym, of England, a farmer of great practical experience, used the following emphatic language with respect to the value of draining lands: "Without that necessary operation — draining — the profitable occupation of heavy land cannot be carried on."

F. Falkland, Esq., also of England, the author of several agricultural works of merit, thus sums up his views upon the importance of draining: —

"In conclusion it should be observed, that every attention which can be paid to the preparation and application of manures will be ineffectual in rendering soils fertile, unless due regard be given to the removal of excess of moisture by draining, when needful. When a soil is saturated with water, air is excluded from the roots of the plants, and prevented from acting upon the manure; while the low temperature produced, by continued evaporation from the surface, has an additional powerful effect in retarding the progress of vegetation.

"To lay manure upon wet soils, is, in truth, to throw money away; but were draining universally effected, the whole of the now unproductive soil of the country would, to a vast extent, be rendered capable of receiving the benefit of the numerous modes of fertilizing it. Its returns are immediate, as well as compensative; and to hesitate to drain the land, is to hesitate to confer a benefit upon one's self, of which a strong proof has been lately brought forward in a statement of the profit resulting from the drainage of four hundred and sixty-seven acres, and the employment of the drain water over eighty-nine acres of land, on the estate of Lord Hatherton, in Straffordshire — affording a clear annual interest on the outlay of full thirty-seven per cent." — *Genesee Farmer.*

DEPTH OF PLOUGHING.

All cultivated plants are benefited by a deep permeable soil, through which their roots can penetrate in search of food; and although depth of soil is not fully equivalent to its superficial extension, it is evident that there must be a great increase of product from this cause. For general tillage crops, the depth of soil may be gradually augmented to about twelve inches, with decided advantage. Such as are appropriated to gardens and horticultural purposes may be deepened to fifteen and even eighteen inches, to the manifest profit of their occupants. But whatever is the depth of the soil, the plough ought to turn up the entire mass, if within its reach; and what is beyond it should be thoroughly broken up by the subsoil plough, and some of it occasionally incorporated with that upon the surface. The subsoil ought not to be brought out of its bed, except in small quantities, to be exposed to the atmosphere during the fall, winter, and spring, or in a summer fallow; nor even then, but with the application of such fertilizers as are necessary to put it at once into a productive condition. The depth of the soil can alone determine the depth of ploughing; and when that is too shallow, the gradual deepening of it should be sought by the use of proper materials for improvement till the object is fully attained. Two indifferent soils of opposite characters, as of a stiff clay and sliding sand, sometimes occupy the relation of surface and subsoil towards each other; and when intimately mixed and subjected to the meliorating influence of cultivation, they will frequently produce a soil of great value. — *Genesee Farmer.*

The Longevity of Trees. — A writer in the Edinburgh Philosophical Journal, alluding to the longevity and size of trees, states that in Britain there are still extant and growing oaks, and probably elms, which were planted before the Conquest; i. e. more than eight hundred years ago. And there are yew-trees, much older still. There are some at Fountain Abbey, near Ripon, in Yorkshire, which are believed to be more than 1200 years old; two in the churchyard of Crowhurst, in Surrey, of 1450 years; one in Braybourn churchyard, in Kent, is said to have attained the age of 3000 years; and another at Hedsor, Bucks county, which is in full vigor, and measures twenty-seven feet in *diameter*, appears to be upward of 3200 years old.

Natural Habits of Domestic Animals. — The natural habits of different domestic animals differ very considerably. In small and thorough-bred horses, the pulsations of the heart are about forty to forty-two in a minute. In farm horses they do not amount to more than thirty-six. When they are treated ill, or even when spoken roughly to, their circulation is increased, say ten pulsations per minute. — Cold has great effect on the pig. It is found that pigs whose sties have a southern aspect, thrive much better than those placed in a colder declination; they can hardly, perhaps, be kept too warm, or too clean." — *Cuthbert W. Johnstone, Esq., Farmer's Magazine.*

Domestic Department.

For the good housewife who would manage her household affairs in the most prudent and judicious manner, and train up for useful action the tender minds committed to her care, this department is designed. These subjects are of a wide range, and of many forms or phases, and they are all susceptible of improvement. The good woman of the house has her field of action, as well as the farmer; and in her sphere, skill, science, intelligence, and good taste, not only contribute, as much to the happiness of the family, as does the good management of the cultivator in his field, but they contribute equally as much to prosperity, and the acquisition of a competency.

Having thus presented the importance of the subjects, in which we hope that all our fair readers will take a deep interest, we would invite them to communicate for this department. We are among those who believe that females are not inferior in mental powers to those who would be the "lords of creation," and there is no reason why they should not furnish communications for this department, as well as men, on subjects in their appropriate sphere.

HOME EDUCATION OF DAUGHTERS.

Messrs. Editors: There is a subject which might perhaps, with propriety, find a place in your journal, if some able pen could take it up, and treat it according to its importance. The subject to which I allude is the *Home Education of Daughters*.

Where, but at home, are nurtured and expanded all the finer feelings of our nature, all the sympathies of the heart? The daughter, in relieving the mother of pressing and indispensable cares, of administering to the wants of father, brother, or sister, enjoys infinitely more heartfelt satisfaction, than she could in displaying her attainments (be they ever so numerous) in what are styled the more polite accomplishments.

The aim of education seems to be, to fit each of us to fill with ability and propriety our individual station in life. A correct home education must, therefore, be regarded as the corner-stone of all that is truly desirable, excellent, or beautiful, in female accomplishments. What though the superstructure be ever so beautiful and elegant, ever so symmetrical and tasty; yet if the foundation be deficient, where is the worth of the edifice? Who would choose it for a resting-place? Who would repose in it with trust and security?

The American mother should, above all others, feel the importance of training her daughters to habits of domestic industry, to the cares and duties of *real* life, which tend to call forth the enterprise and energies of their natures, which qualify for usefulness, rather than to shine and dazzle. Let the useful, the agreeable, and ornamental, be made to harmonize. Our daughters should be taught to feel that a practical acquaintance with domestic labor is as indispensable to their thorough education, as the knowledge of music, drawing, or the languages, and that to understand plain needlework is much more requisite than skill in embroidery. There is time enough, if introduced advantageously, from infancy to maturity, to learn all these things. While a practical knowledge of every branch of household economy detracts nothing from her accomplishments, it adds a pleasing lustre to her character.

If, now, I have said enough to provoke some competent person to take up this subject, you will not again be troubled with communications from

Ida.

— *Central New York Farmer.*

Boiling Water. — We wish to correct a mistake that prevails among many of our housekeepers, which is, that the hotter the fire, the hotter the water that is boiling over it. Now, the boiling point of water is two hundred and twelve degrees, and hotter than that it cannot be made, in an open vessel, or in one covered with a loose lid, however great the fire under it may be. As soon as water reaches the temperature of two hundred and twelve in the ordinary state of the atmosphere, it commences boiling, and any increase of heat under it only increases the evaporation, without in any manner changing the temperature of the water. After reaching the boiling point, water is changed into vapor, or steam, which absorbs the heat as fast as it comes in contact with the water, and immediately carries it off into the atmosphere, combined with water, in the form of vapor. — *Selected.*

Flour, Bolted and Unbolted. — An article which we first noticed in the Albany Journal of Agriculture and Science, and the object of which is to show that bolted is much less nutritive than unbolted flour, is now going the rounds of the public newspapers. However great the difference in this respect, it will be a difficult matter to induce our housekeepers to adopt the use of unbolted flour, until they can be fully persuaded that brown bread *looks* better than white. There is no doubt, however, but that, weight for weight, unbolted flour is more rich in all the essential elements of nutritive food than the ordinary fine flour of commerce. "But then it makes brown bread." — *Iowa Farmer.*

Boys' Department.

Boys, please to consider why you are sent to school, or directed to study at home, day after day, and from year to year. The great object is, to acquire an education that will enable you to act with intelligence, when you are old enough to attend to business. We will give you one hint which may be followed with ease and pleasure; and if attended to, it will be worth to you more than a gratuitous passage to the gold regions of California, for intelligence is conducive to happiness, and it is a treasure of which none can rob or defraud you.

Here is that useful hint. In all cases, learn the meaning of every important word you meet with in conversation or reading, that is not already familiar to you. This you may do by inquiring of your friends around you, at the proper time, or by consulting a dictionary, or encyclopedia, or a gazetteer or geography, for names of places. This course may be rather difficult at first, but as you progress, your minds will expand, and it will be a pleasure, and after a while you will acquire a fund of knowledge on every subject, and you will learn definitely the nature and power of language, and not only learn the true meaning of expressions and sentences which you hear or read, but it will enable you to use

language correctly, and express truly any thought you desire. At some future time, we may illustrate our remarks by examples.

Good Advice to Boys. — Be *brisk, energetic, and prompt!* The world is full of boys — and men too — who drawl through life, and never decide on any thing for themselves — but just draggle one leg after the other, and let things take their own way. Such people are the dull stuff of the earth. They hardly deserve as much credit as the wooden trees; for the trees do *all the good they can*, in merely growing, and bearing leaves and seeds. But these drawling, draggling boys do *not* turn their capacities to profit, half as far as they might be turned; they are unprofitable, like a rainy day in harvest time. Now, the brisk, energetic boy will be constantly awake, not merely with his bodily eyes, but with his mind and attention, during the hours of business. After he learns what he has to do, he will take a pride in doing it *punctually* and *well*, and would feel ashamed to be told what he ought to do without telling. The drawling boy loses in five minutes the most important advice. The prompt, wide-awake boy never has to be taught twice, but strains hard to make himself up to the mark, as far as possible, out of his own energies. Third-rate boys are always depending upon others; but *first-rate boys depend upon themselves*, and after a little teaching, just enough to know what is to be done, they ask no further favors of any body. Besides, it is a glorious thing for a boy to get this noble way of self-reliance, activity, and energy. Such a one is worth a hundred of the poor, draggling creatures, who can hardly wash their own hands without being told, *each time*, how it is to be done. Give me the boy who does his own work promptly, *and well*, without asking — except once for all, at the beginning — any questions. The boy who has his wits about him, is never behindhand, and don't let the grass grow under his heels. — *Farmer and Mechanic.*

Health.

Bathing or Washing in Winter. — This operation, so essential to good health, is so little practised in winter, that the very naming of the subject will send a thrill through the sensitive frame of many of our readers, and they will draw their garments closer around them, and move nearer the fire, to save them from taking cold while reading this article.

There is but little trouble in bathing in hot weather, when the application of cold water to the system is often grateful. But in cold weather, there is in most minds a dread of water, almost as great as in one afflicted with the hydrophobia, and bathing and washing, in winter, are generally discontinued; and this is one cause of colds at this inclement season.

In summer, the skin is soft and moist, and by profuse perspiration, and the frequent change of garments, the system is cleansed, in some measure, without washing; yet washing is necessary. But in winter, the perspirable matter passes out to the surface of the body, where it lodges, forming a dry scurf, closing the pores of the skin, and perspiration after a while becomes impeded, and the redundant matter is thrown inward upon the lungs, and must be thrown off by coughing; thus requiring a double office of these delicate organs, which have enough to do in their own peculiar province, in a climate where the thermometer often varies in twenty-four hours as many degrees.

Infants are generally washed daily, but when they become large children, and adults, they often go six months without this operation, so essential to health and comfort. The face is washed often, the body seldom. Why this difference? A thorough washing of the whole system once a week, is not a hard task, and the advantages from it will be great. It will not only add to health and happiness, but to life itself. If one thinks he has not time, let him take the time from the hours of sleep, even if he be already limited in that respect to five or six hours in the twenty-four. He will sleep *faster*, after bathing, and make up for the deficiency.

After bathing or washing in cold water, brisk rubbing, with a coarse cloth, will produce a pleasant glow, and prevent injury even to a person of a delicate constitution. But those who choose can use warm water in a warm room. We say to our readers, as you value health, life, and happiness, give due attention to thorough and frequent bathing and washing. See that every member of the family attends to it, at least once a month; once a week is better. There is no excuse for the gross neglect on this subject, for if any one has not a bath, or shower bath, a tub is sufficient; and any one who has six hours to sleep, can take half an hour for bathing, and then he will gain an hour in sweeter, sounder, and more refreshing sleep.

Remedy for Tetanus, or Locked Jaw. — We have been furnished, by a correspondent, with the following simple remedy for this disease, accompanied with a request to publish.

The writer, after alluding to a case in which a deserving individual lost his life by having a rusty nail run into his foot, says, —

"I would state, for the benefit of all who may have the misfortune to encounter similar mishaps, that a cent, or piece of copper, bound firmly over the wound, so as to compress it, will effect immediate and entire relief. The wound, whether made by a rusty nail or any other substance, speedily heals, and ceases almost instantaneously to be sore or painful. Tarnished or rusty copper is to be preferred to pure.

"One who 'doctors' himself."

— *Maine Cultivator.*

Remedy for Asthma. — An individual who has suffered much from asthma, and who had in vain sought relief from regular physicians, wishes us to give publicity to the following remedy: —

"Procure common blotting paper, and thoroughly saturate it in a solution of nitre, (*saltpetre,*) and let it be carefully dried by the fire, or exposure to the rays of the sun. On retiring at night, ignite it, and deposit it, *burning*, on a plate or square of sheet zinc or iron in your bedroom. In many cases, it is said, this has enabled persons painfully afflicted to enjoy their rest." — *Maine Cultivator.*

To cure a Burn. — A lady, preacher of the society of Friends, in New York, was so successful in curing burns, that many supposed her possessed of the power of working miracles.

The following is the recipe for the salve: "Take

one ounce of beeswax, with four ounces of Burgundy pitch, simmered in an earthen vessel together, with as much sweet oil as will soften them into the consistency of salve, when cool. Keep it from air in a tight box or jar. When used, spread it thinly on linen cloth, and apply it to the part injured. Open the burn with a needle, and let out the water till it heals."

Mechanics' Department, Arts, &c.

Land for Mechanics. — Every mechanic, excepting those residing in compact cities, should have a spot of land, in order to have transient fruits and vegetables, fresh and in prime condition, also for the purpose of embellishment with trees, shrubs, and flowers; affording, in addition, a pleasant and healthy exercise, during the hours of recreation, or respite from business or labor.

Some kinds of mechanical labor are of a light, sedentary nature, or they afford a strong exercise to some few muscles only; and while these are overtaxed, others are unemployed. But gardening, particularly such operations as digging, hoeing, shovelling, &c., gives exercise to all parts of the system, and conduces to that equilibrium of action so essential to health, refreshing rest and sleep, and that general comfort which constitutes happiness.

"What great effects from little causes spring!
What wealth does labor well-directed bring!"

Importance of well-directed Labor. — A single stroke of an axe is of little consequence; yet by the continual application of that small power, properly directed, what amazing effects are produced! The sturdy oak and lofty pine do not simply own its power, but whole forests fall before it, and the wilderness becomes a garden.

Industry, well directed, will give a man a competency in a few years. The greatest industry misapplied is useless.

As an example, there is my neighbor, Seth Steady, the blacksmith, is not only an industrious man, but his industry is applied to one object. His hammer is heard at dawn of day, and the fire blazes in his shop, during the evenings, from the 20th of September to the 20th of March. Go to his shop at any time of the day for any kind of work, you are sure to be waited upon. The consequence is, his purse is filled with dollars, and his cellars well filled with provisions; and that's what I call quite comfortable. Although suitably liberal, and enjoying the good things of life as he goes on, ten years of health will enable him to purchase a good farm.

As a contrast, there is my friend Nat Notional, the busiest and most industrious mortal in existence; as the old saying is, "he has too many irons in the fire," and with all his industry he goes behindhand.

He has a fine farm, but instead of pursuing the cultivation of it, he flies and scizes on every new project that occurs.

A few years ago he concluded to give up the dairy business, in consequence of the low price of butter and cheese; sold his cows at a low figure, and purchased sheep at a high rate, for wool then commanded a high price. By the time he got fairly into the raising of wool, down went the price of wool, and up went the price of butter and cheese. He then sold his sheep and purchased cows again, for cheese was up, and wool was down. Last year, after sowing a number of acres of grain, he resolved to rent his farm, sell the grain on the ground, buy a team, and go to hauling; for, by a nice calculation, he had proved that money might be made by it. A team was procured; but after one or two trips, he concluded to sell his team, build a saw-mill, and go largely into lumbering. The dam was completed, the irons procured, and three fourths of the expense incurred, when, by a nice calculation, (for no one makes *nicer* calculations,) he found that an oil-mill would afford the best profit; and to work he went with great industry, building an oil-mill.

I happened to go there a few weeks afterwards, and the whole organization of the mill was undergoing an alteration, to fit it up for a cotton and woollen manufactory.

A quizzical friend intends to propose to him to abandon that project and enter largely into the manufacture of flour, and I have no doubt that he will readily accede to the proposal.

So with all his industry and expense, he is neither benefiting himself nor the public. — *Albany Cultivator.*

To make a delicate Picture Varnish. — Take two ounces of gum mastic and one ounce of gum sandarach, pulverize them to a powder, put them in a flask or glass bottle, and add a pint of alcohol; shake the whole together till the gums are well mixed with the liquor, and set it in a warm place to dissolve. When the gums have dissolved, strain the solution through a fine flannel, and put it in a clean bottle, corked tight, till wanted for use. This varnish may be applied to pictures, boxes, or other fancy articles, and will dry in one minute, and produce a beautiful water-proof gloss. When maps or pictures on paper are to be varnished, they must first be sized with a solution of gum arabic in water, to prevent penetration by the varnish; and if the weather is cold, the article must be warmed prior to the application of the varnish. —*Scientific American.*

To make Court Plaster. — Take very thin silk, dip it in a solution of isinglass, (or fish glue,) with water, and after it becomes dry, dip it several times in the white of an egg.

DRIVING OXEN.

Those having the care of these useful animals, should never drive them so fast as to cause them to *loll*. A certain writer, in remarking upon this subject, says, —

"We sometimes see these animals moving so slow in the field and on the road, that we can scarcely tell which way they are going. This mode of driving is wrong; let them travel at least two miles an hour, and stop occasionally for breath. In this way we prevent their acquiring that slow pace with which the ox is so frequently reproached; and there is no difficulty, with proper management, in keeping him to this pace of two miles per hour. The driver should never let his whip become too familiar with his team. If he suffers it to rest on his cattle's backs, it is very likely to lose its charm; and a parent might as well give his rod to his child to play with."

In Scotland the ox is trained to a quick movement. He is never overloaded while young, and it is said rarely falls short of three miles an hour, as a common "jog," either on the road or in the field. The slow, almost imperceptible progress of some teams while ploughing, or performing other agrestic operations, is oftentimes painful to behold. It impresses one with

the idea of great fatigue, and can scarcely be dissociated, in the mind of the observer, from that of extreme exhaustion and pain. When young, the ox is nimble and sprightly, and as susceptible of speed as the horse. Yet, by wrong habits, he becomes heavy and sluggish in his movements, and finally acquires that slow, snail-like pace, which so greatly diminishes his value, as a draught animal, for most purposes, and which renders the driving of him wearisome and unpleasant in the extreme. — *Germantown Telegraph.*

CUT FODDER.

The practice of cutting, or, as the British agriculturists denominate it, "chaffing" fodder, is among the most important improvements of the age. By cutting stalks, straw, and hay, a very large portion will be economized, which, under the old system of feeding, would be wholly lost. One bushel of chaffed fodder, given in a mess three times a day, will effect more good than twice the amount in its natural state. The weight of a bushel of chaffed hay is probably about five and a half pounds; and a horse or ox thrives more on fifteen pounds, thus prepared, (if we may credit the results of actual experiments,) than on fifteen pounds fed whole. This difference is owing in part to the meal with which it is ordinarily mixed; but when hay is only given, the difference is in the ratio of two to one. When cattle are fed on loose fodder, in its natural state, a very large proportion is inevitably lost: the breath of the animals renders it unsavory, and besides, a large amount is rejected or drawn out, and left beneath their feet. Particularly is this the case with animals fed in racks instead of troughs. — *Olive Branch.*

TO BUILD A POLE BRIDGE.

Mr. Editor: Put your sleepers so that the upstream side of your bridge will be a little the lowest. This, in case of overflow, will cause the current to press the floor down, instead of lifting it. Having laid down your poles or puncheons for floor, put a strong pole across each end of them. Let the last-mentioned poles be long enough to reach across the bridge, and extend some little distance on each bank. With a heavy mall drive two strong stakes near each end, so as to cross above; then lay two other heavy poles in the forks formed by the crossing of the stakes. These last poles will not only serve for banistering, but will confine the bridge to its place, unless the water rise high enough to let them out of the forks. The same plan is a good one to confine rails or puncheons on a causeway subject to overflow. — *Southern Cultivator.*

POTASH A PROPER FOOD FOR GRAPE-VINES.

Having, last year, seen it stated in a paper, that the ashes of grape vines contained a large amount of potash, I caused three vines, of the same size, to be planted in boxes filled with equal quantities of earth, in which I noted the following results: —

No. 1 was supplied, when necessary, with pure water, and in a given time, increased six inches in length. No. 2 was watered with a solution of whale-oil soap, and in the same length of time acquired nine inches of growth. And No. 3 I watered with a solution of potash, and within the same period as above, it grew eighteen inches in length!

By the beginning of November, No. 1 and No. 2 dropped their leaves, and showed no signs of fruit; whereas, No. 3 retained its leaves three weeks later, and in the course of the season shot forth several bunches of fruit, which, of course, were not suffered to grow. This shows the importance of knowing what kinds of salts go to form wood and fruit, in order that we may apply such manures to the soil as the vine or fruit-tree requires.

I wish we could have full analysis made of our great staple, Indian corn, including the grain, cob, stalk, and blades. — *Correspondent of the American Agriculturist.*

PRESERVING SCIONS.

Scions should be cut at any convenient time from October until the buds begin to start. When cut in the fall, bury them in light soil. When cut in winter, they may be saved in good condition, in the following manner: Take a tight box, and wet it inside and out a few times, that the boards may become saturated with moisture. Then put moist sawdust, moss, or earth, in the bottom, or a moist mat or cloth will answer. Lay in the scions; the larger the quantity, the better they keep. Place a moist mat or cloth over them, cover the box tight, and set it in the cellar. During winter, keep the mat on the top a little moist, and moisten the sides of the box, about once a month. Do not apply water to the scions, as much moisture is injurious; only keep them in a moist atmosphere. As warm weather comes on in the spring, it may be necessary to moisten the mat and the sides of the box more frequently. In this way scions may be well kept from October to July. Some often apply water to the scions, and drown them, or cause them to start before set.

For the New England Farmer.

AGRICULTURAL SOCIETY IN NEEDHAM.

Mr. Editor: At a meeting of farmers of this place, held at the Town Hall, in October last, a committee was chosen to report a plan and constitution for an Agricultural Society. The committee subsequently made their report, and last evening the organization of the society was completed by the choice of the following officers, viz.: Col. Warren Dewing, President; Messrs. John Bird and Otis Sawyer, Vice-Presidents; E. K. Whitaker, Secretary; Daniel Kimball, Treasurer; and Messrs. W. Flagg, W. Pierce, W. M. Stedman, W. A. Kingsbury, R. Ware, J. Fuller, Jr., and T. Kingsbury, Directors.

The object of the society being the improvement of the town in its agricultural interests, a correspondence and coöperation with similar societies, elsewhere established, is respectfully solicited.

Needham, *Dec.* 30, 1848.

"Oak leaves," says Thaer, "are not easily decomposed, and contain an astringent matter, which is highly injurious to vegetation as long as the leaf remains undecomposed."

ACKNOWLEDGMENTS.

From Mr. Aaron Sanborn, Hampton Falls, N. H., a barrel of *Red Russet* apples, not yet in use. By the kindness of Mr. S., we have had a few of these apples before, and they were in use in April and May. In size, form, color, quality, and time of keeping, they

seem to be intermediate between the Baldwin and Roxbury Russet. We find it to be an excellent grower, and it is called a good bearer. Promising, but not yet fairly tested.

Of Mr. John M. Ivers, Salem, a variety of apples. *Aunt Hannah* is of excellent flavor, about equal to the famous Newtown Pippin, and it succeeds better in New England, but it does not keep so well. As it is rather small, it is better for the private garden, than for the market. *Barker's Seedling*, a small, beautiful, red apple, of fine quality. Michael Henry Pippin, not yet in use. Mela Carla; this holds the first rank in Spain, but here it is coarse and inferior.

From Charles Downing, Esq., Newburg, N. Y., a box of fine specimen apples. As some are not in use, and we have examined only a few, we will report on them at another time.

Of Mr. Oliver Atkinson, Lynn, a very handsome, fair, and excellent sweet apple. New and promising.

Of Mr. J. S. Draper, Wayland, the Echassery pear, sometimes improperly called the Ambrette. Small, but hardy, productive, and excellent. This is usually fine, while most winter pears are very uncertain.

To Mr. A. H. Ernst, of Cincinnati, O., we are much indebted for various works containing the charter, constitution, by-laws, reports, essays, &c., &c., of the Cincinnati Horticultural Society.

NOTICES OF PUBLICATIONS.

Allen on the Grape. — J. Fisk Allen, Esq. has just got out a new edition of his work on the grape, very much enlarged and improved, forming a neat bound volume, embellished with beautiful engraved illustrations, and greatly improved by valuable communications from distinguished vine-growers, in different parts of the country, on the cultivation of the grape, and a list of the best varieties. For this country, this is decidedly the best work extant. It is strictly practical, and by one of the most successful grape culturists in the country.

Messrs. Hoveys' Catalogue of Pears. — This contains a descriptive list of seventy-seven natives, and five hundred and three foreign pears, in separate tables. These enterprising gentlemen have long devoted much attention to collecting, from different sections of this country, and from Europe, various kinds of pears, and proving, arranging, and describing them.

Colman's Continental Agriculture. — The last two numbers of Mr. Colman's European Tour have just been published in one volume. It embraces the agriculture and rural economy of France, Belgium, Holland, and Switzerland. This work is practical, and very interesting, particularly as it treats of those countries that rank high in agricultural improvement. Mr. Colman's clear and beautiful style gives additional charm to any work.

Boston Almanac for 1849. — This neat and valuable annual has again made its appearance. Among the improvements is a map of Boston and the vicinity, (about twenty miles around,) engravings of the different school-houses, history of schools, &c. It contains a large amount of matter highly useful to any one in Boston, or occasionally visiting the city on business.

Address of General Josiah Newhall, Lynn, before the Essex Agricultural Society, is a very sensible discourse, containing much practical instruction, as might well be expected from the author. We publish an extract from it.

THY WILL BE DONE.

The following beautiful and pious effusion is from a memoir of Miss Alexander, the daughter of the late Bishop of Jerusalem:

My God, my Father, while I stray
Far from my home on life's rough way,
O, teach me from my heart to say,
Thy will, O God, be done.

If thou shouldst call me to resign
What most I prize, — it ne'er was mine, —
I only yield thee what was thine:
Thy will, O God, be done.

E'en if again I ne'er should see
The friend more dear than life to me,
Ere long we both shall be with thee:
Thy will, O God, be done.

Should pining sickness waste away
My life, in premature decay,
My Father, still I'll strive to say,
Thy will, O God, be done.

If but my fainting heart be blest
With thy sweet Spirit for its guest,
My God, to thee I'll leave the rest:
Thy will, O God, be done.

Renew my will from day to day;
Blend it with thine, and take away
All that now makes it hard to say,
Thy will, O God, be done.

And when on earth I breathe no more
Thy prayer, oft mixed with tears before,
I'll sing upon a happier shore,
Thy will, O God, be done!

THE OLIO.

Science has sought, on weary wing,
On sea and shore, each mute and living thing.

An Awful Pause. After the clergyman had united a happy pair, an awful silence ensued, which was broken by an impatient youth, exclaiming, "Don't be so unspeakably happy!"

The miser starves himself, that his heirs may feast.

The Plough. Its one share in the bank of earth is worth ten in the bank of paper.

"I say, neighbor Hodge, what are you fencing up that are pasture for? Forty acres of it would starve a cow!" "Right," replied Hodge, "I'm fencing it up to keep the cows out."

The farmer feeds all.

A beautiful flower is the type of mortality. It flourishes a few days, then withers, dies, and is seen no more.

Nothing circulates so rapidly as a secret.